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July 10, 1995

VIA HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W. - Room 222
Washington, D.C. 20554

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Re: RM-8658 and RM-8653

Dear Mr. Caton:

On behalf of Digital Microwave Corporation, we are filing an original and seven (7) copies of its Comments in the above-referenced matter.

If there are any questions, please communicate with the undersigned counsel.

Respectfully submitted,

FLETCHER, HEALD & HILDRETH, P.L.C.

Leonard Robert Raish

Leonard Robert Raish
Counsel for Digital Microwave Corporation

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Enclosures

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BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

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JUL 10 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matters of)

(1) Petition for Rulemaking To Allocate)
the 5.1 - 5.35 GHz Band and Adopt)
Service Rules for a Shared Unlicensed)
Personal Radio Network)

RM -8648

(2) Allocation of Spectrum in the 5 GHz)
Band To Establish a Wireless)
Component of the National Information)
Infrastructure)

RM-8653

To: The Commission

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**COMMENTS OF THE
DIGITAL MICROWAVE CORPORATION**

The Digital Microwave Corporation ("DMC"), through its attorneys, submits the comments below on the above cited two Petitions.¹ DMC, as a matter of principle, supports spectrum to promote development of new telecommunications technologies as well as actions that enable U.S. manufacturers to better compete for export markets.

I. GENERAL

DMC is one of the largest suppliers of digital microwave equipment in the global market and the fourth largest supplier in the United States. Its customers include common carriers offering a variety of digital transmission services to their customers as well as private users and

¹On June 8, 1985, the Commission issued its Order Extending Time in the matter of RM-8648 so that comments thereon could be consolidated with comments on RM-8653. A Comment deadline of July 10, 1995 was set for the consolidated comments.

governmental agencies. Its corporate headquarters is located in San Jose, California. As a supplier of microwave equipment, DMC is vitally interested in the Commission's regulations governing licensing and spectrum allocations.

II. AIM OF PARALLELING EUROPEAN HIPERPLAN IS CONCURRED IN

DMC is a significant exporter of products to European markets and, therefore, concurs with the concept in both the Petitions cited above that U.S. plans for the new service involved will be consistent with the European HIPERPLAN. Both Petitioners are commended for taking this approach.

III. INTEREST IS IN POINT-TO-POINT REQUIREMENTS TO SUPPORT APPLE AND WINFORUM SYSTEMS

A study of both Petitions indicate that point-to-point links will be needed to support the unlicensed network communications envisaged. As a matter of fact, Apple refers to links of up to 10 and 15 kilometers in length. DMC has considerable reservations about operation of point-to-point microwave links beyond one kilometer in length in an unlicensed mode. The power required to provide longer "hop" services could create harmful interference and, if used in an unlicensed mode, could create serious operational problems.

DMC calls the Commission's attention to its establishment of the 18, 23, and 38 GHz bands for "short hop" point-to-point communications. Rather than place such operations in the 5 GHz band, where the spectrum is much more desirable for other purposes, point-to-point links supporting the unlicensed services could and should be placed in the higher bands. The advantage would be fourfold, viz, (1) harmful interference to and from the unlicensed services would be avoided, (2) more spectrum at 5 GHz would be available for the unlicensed networks,

(3) the unlicensed networks would be able to depend on the reliability of its supporting point-to-point links because they would be licensed and the spectrum used coordinated to avoid interference, and, finally, (4) manufacturers are already producing the needed point-to-point equipments.

IV. WINFORUM PROPOSAL FOR A SINGLE 250 MHZ ALLOCATION IS PREFERABLE

Apple in its Petition proposes that the 5150-5300 and 5725-5875 MHz be allocated for its "NII Band" proposal whereas WINFORUM proposes 5100-5350 MHz for SUPERNET. The former involves 300 MHz in two bands and the latter 250 MHz in a single allocation. Considering the "value" of 5 GHz spectrum to many other service and as a matter of good spectrum management, DMC urges the Commission to adapt the WINFORUM spectrum allocation proposal.

Both Petitioners make references to the ability of their unlicensed services to share with other services, e.g., Mobile Satellite and Federal Government radars. The Commission should note there is no demonstration in the Petitions that this sharing is feasible. In any event, the WINFORUM Petition proposing a single band of 250 MHz would narrow the spectrum sharing problems.

V. CONCEPTS INHERENT IN APPLE AND WINFORUM PETITIONS ARE SUPPORTED NOTING THERE IS NEED FOR MORE SPECIFICS TO BE SPELLED OUT PRIOR TO COMMISSION RULEMAKING ACTION

Both Petitions contain references to a need for "rules" to be developed prior to their proposals becoming operational. DMC suggests the Commission be concerned about the lack of assurances that all users could participate in the unlicensed services on an equal basis. In other

words, prior to proceeding rulemaking, the Commission should include specific rules on power levels to assure sharing would be realistic. As indicated in both Petitions a number of rules will be needed. The Petitioners should be asked to spell these out in greater detail to assure the public interest will be served.

VI. CONCLUSIONS

Subject to the comments set forth above, DMC recommend the Commission proceed to rulemaking in order to make a promising new service available to the user public.

Respectfully submitted,

DIGITAL MICROWAVE CORP.

By: Leonard Robert Raish
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Its Attorney

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